

## Assessment of Meyer and Allen's Three-Component Model of Organizational Commitment in South Korea

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J. P. Meyer and N. J. Allen's (N. J. Allen & J. P. Meyer, 1990; J. P. Meyer & N. J. Allen, 1991) 3-component model of organizational commitment was investigated with samples from 2 different organizations in South Korea. Data were collected by self-administered questionnaires and analyzed using covariance structure analysis. The results were mixed. Reliabilities of the Affective Commitment Scale (ACS) and the Normative Commitment Scale (NCS) were acceptable, whereas the reliability of the Continuance Commitment Scale (CCS) was low. The 3 scales had acceptable convergent validity, but the ACS and the NCS lacked discriminant validity. The construct validity of the ACS was supported, whereas the construct validities of the CCS and the NCS were questionable. Psychometric and conceptual problems were discussed, and suggestions for future research were advanced.

For over 2 decades the concept of organizational commitment has attracted considerable attention in the study of organizations (Lincoln & Kalleberg, 1990; Mathieu & Zajac, 1990). The concern with organizational commitment stems mainly from the impact it is believed to have on turnover and absenteeism. Porter and his colleagues' seminal work (Mowday, Porter, & Steers, 1982; Porter, Steers, Mowday, & Boulian, 1974)—which indicated that organizational commitment is a better predictor of turnover and absenteeism than job satisfaction—especially generated interest in the concept. However, despite the substantial number of studies in the area, there is considerable disagreement on the meaning and measurement of organizational commitment (Allen & Meyer, 1990; Meyer & Allen, 1991).

Meyer and Allen (Allen & Meyer, 1990; Meyer & Allen, 1991) recently proposed a three-component model of organizational commitment that integrated a variety of alternative conceptualizations. They suggested that the definitions in the literature mostly reflected one of three general themes—*affective attachment*, *perceived costs*, and *obligation*—and termed attachment based on these three themes as *affective*, *continuance*, and *normative commit-*

*ment*, respectively. The *affective component* refers to attachment to the organization such that the strongly committed individual identifies with, is involved in, and enjoys membership in the organization. Under the label *attitudinal commitment*, Porter and his colleagues (Mowday et al., 1982; Porter et al., 1974) conducted major research on the affective component. The *continuance component* refers to a "tendency to engage in consistent lines of activity" (Becker, 1960) on the basis of the individual's awareness of the costs associated with leaving the organization. Although Becker's side-bet view has stimulated much research into behavioral commitment, Meyer and Allen argued that Becker's view is more consistent with the attitudinal approach where the nature of commitment is psychological. Becker's view, to Meyer and Allen, is psychological because he emphasized the *awareness* of costs. Finally, the *normative component* refers to commitment based on a moral belief or obligation that "it is the right and moral thing" to remain with the organization (Wiener, 1982).

Allen and Meyer (1990) developed scales to measure their three components of commitment. Their scales have been incorporated into many investigations (Bycio, Hackett, & Allen, 1995; Konovsky & Cropanzano, 1991; Shore & Wayne, 1993). Although recent studies of the psychometric properties of the Allen and Meyer (1990) scales (Allen & Meyer, 1990; Dunham, Grube & Castaneda, 1994; Hackett, Bycio, & Hausdorf, 1994; McGee & Ford, 1987) have been supportive, their construct validity, especially as it pertains to the normative component, is not well established.

The original eight-item versions of the scales were re-

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cently modified by Meyer, Allen, and Smith (1993) to be six items each. Two items were eliminated from the Affective Commitment Scale (ACS); for the Continuance Commitment Scale (CCS), three items were removed, and a new item was added. In the case of the Normative Commitment Scale (NCS), the six items were completely rewritten to capture more adequately the meaning of the concept. Meyer et al.'s study showed that the modified scales have generally acceptable psychometric properties in terms of reliability, convergent validity, and construct validity, but the NCS is highly correlated with the ACS ( $r = .74$ ).

Our study evaluates Meyer and Allen's new six-item versions of the three scales in South Korea, a society quite different from the Western context, in which the vast majority of the evaluations have occurred. The results of this study address the cross-cultural applicability of Meyer and Allen's three scales.

### Determinants and Consequences of Commitment

Construct validation, which is of vital importance in the assessments of the psychometric properties of a measure, requires predictions derived from causal models that can be used as criteria to evaluate the measure (Nunnally, 1978). Various determinants and consequences of the three components of commitment have been proposed (Allen & Meyer, 1990; Dunham et al., 1994; Hackett et al., 1994; Mathieu & Zajac, 1990; Meyer & Allen, 1991; Meyer et al., 1993). The definitions of the determinants and consequences examined in our study are provided in Table 1; we assessed these variables with measures most of which have been widely used in the study of organizations. Examples of the measures used in this study are also presented in Table 1.

#### *Determinants of Affective Commitment (AC)*

The processes leading to the development of AC are taken from exchange principles (Mottaz, 1988; Mowday et al., 1982). An organization typically provides rewards or punishments at its disposal in return for the contributions its employees make or fail to make, and the employees commit themselves to the organization in return for the rewards received or the punishments avoided. This suggests that AC is largely the result of rewards or punishments. Our study examined fourteen rewards/punishments as possible determinants of AC (sign of expected relationship is given): job autonomy (+), routinization (-), role ambiguity (-), role conflict (-), workload (-), resource inadequacy (-), supervisory support (+), coworker support (+), distributive justice (+), legitimacy (+), promotional chances (+), job security (+), job hazards (-), and pay (+). The relationships of AC with these rewards/punishments are supported in the liter-

ature (Iverson & Roy, 1994; Mathieu & Zajac, 1990; Meyer & Allen, 1991; Wallace, 1995).

The literature (Cropanzano, James, & Konovsky, 1993; Mathieu & Zajac, 1990; Wanous, Poland, Premack, & Davis, 1992) also suggests that four individual variables impact on AC. Researchers anticipate that met expectations, work involvement, and positive affectivity will increase AC, whereas negative affectivity will decrease it. In addition, the literature indicates that the environment in which organizations operate influences the employees' orientations. Therefore, researchers expect that external job opportunity will decrease AC, whereas social support from spouse, parents, and friends outside work will increase it.

#### *Determinants of Continuance Commitment (CC)*

Anything that increases the cost associated with leaving the organization can lead to the development of CC (Meyer & Allen, 1991). On the basis of literature (Allen & Meyer, 1990; Becker, 1960, 1964; Meyer & Allen, 1991), we suggest eight variables as potential determinants of CC: self-investment; general training; social support (supervisory, coworker, spouse, parent, and friend); and opportunity.

Self-investment is the amount of valuable resources—such as effort, time, and energy—that an employee has spent in the organization for its well-being (Allen & Meyer, 1990). Increased effort and energy by employees will increase their CC, because leaving the organization will result in the loss of the valuable resources spent for the organization. The lack of transferability of job skills and knowledge will also increase the costs of leaving the organization, because it makes it difficult for employees to find alternative jobs that fit (Becker, 1960). Accordingly, general training should decrease CC. The costs of leaving are psychological as well as financial and physical. If employees move to another organization, it may disrupt the social relationships they have and increase the psychological “cost of making new friends and learning to get along with new working associates” (Becker, 1964). It is thus expected that social support from coworkers, supervisors, spouse, parents, and friends outside of work will lead to increased CC. According to Becker (1960), the lack of external job opportunities increases the costs associated with leaving the organization. Therefore, the fewer available alternative jobs in the environment, the greater will be the employees' CC to their current employer.

#### *Determinants of Normative Commitment (NC)*

On the basis of the works of Wiener (1982) and Scholl (1981), Meyer and Allen (1991) suggested that two

Table 1  
*Definitions of Variables and Sample Items of Measures*

Variable	Definition	Sample item
Job autonomy	Degree to which an employee exercises power in performing his or her job.	I have no control over the sequencing of my work activities.
Routinization	Degree to which jobs are repetitive.	My duties are repetitious in my job.
Role ambiguity	Degree to which role expectations are unclear.	I know exactly what is expected of me in my job.
Role conflict	Degree to which role expectations are incompatible.	I often get conflicting job requests from different supervisors.
Workload	Degree to which work role demands are high.	My workload is not heavy on my job.
Resource inadequacy	Degree of insufficient resources necessary to fulfill the responsibilities of assigned jobs.	I have enough equipment to do my job.
Supervisory support	Degree to which superiors are helpful in job-related matters.	My immediate supervisor can be relied upon when things get tough on me.
Coworker support	Degree to which employees have close friends in their immediate work unit.	I am very friendly with one or more of my coworkers.
Distributive justice	Degree to which rewards and punishments are related to performance inputs.	My work rewards are proper for the amount of effort that I put in.
Legitimacy	Degree of acceptance by employees of the authority structure of the organization.	Salary increases and promotions are based on how well I do my job in this company.
Promotional chances	Degree to which vertical opportunities exist for an individual within this organization.	There is a very good chance to get ahead in this company.
Job security	Degree to which an organization provides stable employment for employees.	I will be able to work in this organization as long as I wish.
Job hazards	Degree to which employees are exposed to physically harmful working conditions.	My job rarely exposes me to physical dangers.
Pay	Money and its equivalents received by employees for their services.	Roughly, what is your average monthly income before taxes and other deductions?
Met expectations	Degree to which employees' preconceived ideas about organizational life are met.	This company has lived up to the expectations I had when I first entered.
Work involvement	Belief in the centrality of the work role in one's life.	Work should be considered central to life.
Positive affectivity	A dispositional tendency to experience pleasant emotional states.	I usually find ways to liven up my day.
Negative affectivity	A dispositional tendency to experience unpleasant emotional states.	My mood often goes up and down.
Opportunity	Availability of alternative jobs in the environment.	It would be easy for me to find a job with another employer in this geographical area that is as good as the one I now have.
Spouse support	Degree of job-related assistance provided to an employee by his or her partner.	My spouse is willing to listen to my job-related problems.
Parent support	Degree of job-related assistance provided to an employee by his or her parents.	My parents do not show a lot of concern for me on my job.
Friend support	Degree to which employees have close associates outside the organization.	I don't have close friends with whom I can talk about my problems at work.
Self-investment	Amount of valuable resources that an employee has spent in the organization for its well-being.	I have put a lot of efforts in this organization.
General training	Degree to which the skills and knowledge of an employee can increase the productivity of different organizations.	The skills and knowledge used in my job are needed in other companies.
Commitment norm	Belief that employees should be loyal to the organization where they belong.	Employees should be loyal to their organization.
Intent to stay	Degree to which an employee plans to continue membership with the current employer.	I plan to stay in this company as long as possible.
Search behavior	Degree to which employees intend to seek alternative employment outside the organization.	I almost always follow up on job leads in other companies I hear about.

mechanisms, socialization and exchange, play a key role in the development of NC. According to Wiener (1982), NC develops as a result of normative beliefs that are internalized through pre-entry (familial and cultural) and postentry (organizational) socialization processes. Therefore, a commitment norm, which is labeled as *internalized normative beliefs* by Wiener, is examined as a possible determinant of NC.

The second mechanism that is operative in the devel-

opment of NC is the principle of exchange, or what is called a *norm of reciprocity* by Scholl (1981). According to this principle, NC develops through the receipt of rewards from the organization that instill a sense of moral obligation to reciprocate with commitment. However, all rewards are not likely to instill a sense of obligation. Scholl emphasized that the norm of reciprocity is operative only under the condition that rewards provided to an individual by others go "beyond what

is expected." However, Dunham et al. (1994) suggested that expected rewards provided by others, although not so strong as in the unexpected rewards, may also instill a sense of obligation.

This study examines two types of expected rewards provided for an employee by others, social rewards and organizational rewards. Social rewards, such as supervisory support and coworker support, are derived from interacting with others on the job, whereas organizational rewards—such as distributive justice, legitimacy, promotional chances, job security, the lack of job hazards, and pay—are provided by the organization to facilitate task performance (Mottaz, 1988). Although these rewards are normally not unexpected, as suggested by Dunham et al. (1994), they are anticipated to influence NC. Therefore, social and organizational rewards should lead to increased NC, whereas the presence of job hazards should decrease it.

### *Consequences of Commitment*

In evaluating construct validity, intent to stay and search behavior are investigated as consequences of the three components of commitment. With regard to intent to stay, commitment is a psychological state that characterizes the link between the employee and the organization (Meyer & Allen, 1991). Therefore, all three components of commitment are expected to increase intent to stay. Search behavior is usually thought of as a precursor of intent to stay and thus signals the impending mobility of an employee (Halaby & Weakleim, 1989; Mobley, 1982). As such, the three components of commitment are expected to decrease search behavior.

## **Method**

### *Site and Sample*

The sites for this study were two organizations, a research institute and the head office of an airline company in Seoul, South Korea. These organizations belong to two business conglomerates, T Group and W Group, respectively, both of which are among the largest twenty *Chaebuls* in South Korea. *Chaebuls* are identifiable aggregates of firms that are closely related by shared ownership or other types of interdependencies, such as shared management or mutual financial transactions. The major role of the research institute is solving technical problems of T Group's member companies, as well as developing key technologies for new products and processes.

Sample 1 (the research institute) consisted of 278 respondents. Male respondents accounted for 77% of the sample. The mean levels of their age, education, and tenure were 29.7, 16.5, and 4.5 years, respectively. Sample 2 (the head office of the airline company) was composed of 589 respondents. Male respondents constituted 81% of the sample; the mean age, education, and tenure were 32.5, 15.2, and 7.3 years, respectively. Both samples represent all occupational categories in the organi-

zations we studied, which increases the variances of the variables we investigated.

### *Data Collection*

We collected data by questionnaire. Jong-Wook Ko carefully translated the English version of the questionnaire into Korean. The translation was then modified on the basis of a review by five Korean social scientists with doctor's degrees. We paid careful attention to minimizing the problems inherent in simple translation, such as linguistic or psychometric nonequivalence, between the two different language versions (Hulin & Mayer, 1986). Back translation (Brislin, Lonner, & Thorndike, 1973) was carried out on the final Korean version by two bilingual individuals who were proficient in both Korean and English. A comparison of the original and back-translated items indicated that the two were in substantial agreement.

We conducted the survey between March 16 and April 5, 1995. Jong-Wook Ko distributed questionnaires to 430 employees in the research institute and 970 employees in the head office of the airline company with the assistance of the department (or division) heads. After we excluded 43 cases of missing data, the final Samples 1 and 2 consisted of 278 and 589 respondents, for net response rates of 64.7 and 60.7 percent, respectively.

### *Measurement*

We measured the three components by Meyer et al.'s (1993) six-item versions of the three commitment scales. Coefficient alphas for the ACS, the CCS, and the NCS are, respectively, .86, .58, .78 in Sample 1 and .87, .64, and .76 in Sample 2.

We measured most of the determinants and consequences with measures whose psychometric properties are well established. With the exception of pay, all the variables used multiple-item measures, and responses were made on 5-point, Likert-type scales with verbal anchors ranging from 1 (*strongly agree*), to 5 (*strongly disagree*). All of the measures of determinants and consequences are perceptual, as is common in the study of organizations (Price & Mueller, 1986a). Sample items are presented in Table 1, and descriptive statistics, reliability estimates, and sources of the measures are shown in Table 2. As Table 2 indicates, the Cronbach alphas for the measures of determinants and consequences are all above .60. Correlations among the variables are presented in Table 3.

### *Data Analysis*

We analyzed data using covariance structure analysis techniques. The covariance matrices derived from the two samples that were used as input and maximum likelihood solutions were obtained using LISREL 8 (Jöreskog & Sörbom, 1993). Three steps were involved in the analysis.

First, we conducted a confirmatory factor analysis to determine whether a three-factor oblique model provided a better fit to the data than competing models. Specifically, we compared the three-factor oblique model with a one-factor model where all items loaded on one factor and a two-factor oblique model where one factor was defined by the ACS and the NCS; and we defined the second factor with the CCS. We chose this two-

Table 2  
Descriptive Statistics and Reliability of Indexes

Variable	Item	Range	Sample 1			Sample 2			Source
			<i>M</i>	<i>SD</i>	Alpha	<i>M</i>	<i>SD</i>	Alpha	
Affective commitment	6	1-6	3.214	0.780	.86	2.983	0.820	.87	Meyer et al., 1993
Continuance commitment	6	1-6	2.916	0.611	.58	3.097	0.637	.64	Meyer et al., 1993
Normative commitment	6	1-6	2.937	0.685	.78	2.805	0.684	.76	Meyer et al., 1993
Job autonomy	2	1-5	3.379	0.915	.75	3.222	0.998	.81	Breaugh, 1985 <sup>a</sup>
Routinization	4	1-5	2.682	1.032	.93	2.796	1.045	.93	Price & Mueller, 1981 <sup>a</sup>
Role ambiguity	2	1-5	1.878	0.794	.84	1.807	0.748	.80	Kahn, Wolfe, Quinn, Snoek, & Rosenthal, 1964 <sup>a</sup>
Role conflict	4	1-5	2.829	0.863	.88	2.907	0.864	.88	Rizzo et al., 1970 <sup>a</sup>
Workload	3	1-5	3.442	0.808	.76	3.154	0.856	.75	Caplan et al., 1975 <sup>a</sup>
Resource inadequacy	2	1-5	2.827	0.823	.67	2.888	0.860	.65	Price & Mueller, 1990
Supervisory support	3	1-5	3.570	0.855	.83	3.413	0.858	.84	House, 1981 <sup>a</sup>
Coworker support	2	1-5	3.592	0.850	.64	3.734	0.817	.68	Caplan et al., 1975 <sup>a</sup>
Distributive justice	4	1-5	2.620	0.849	.94	2.648	0.910	.94	Price & Mueller, 1981 <sup>a</sup>
Legitimacy	2	1-5	3.140	0.997	.78	2.911	0.961	.76	Wallace, 1995
Promotional chances	3	1-5	3.270	0.760	.65	3.036	0.847	.72	Price & Mueller, 1981 <sup>a</sup>
Job security	3	1-5	3.400	0.966	.85	3.520	0.854	.76	Oldham, Kulik, Stepina, & Ambrose, 1986 <sup>a</sup>
Job hazards	4	1-5	2.451	1.135	.95	2.158	1.056	.94	Price & Mueller, 1990
Pay <sup>b,c</sup>	1	3-25	13.020	5.213	na	13.349	5.025	na	Price & Mueller, 1986 <sup>b</sup>
Met expectations	4	1-5	2.608	0.802	.87	2.528	0.866	.88	Price & Mueller, 1990
Work involvement	2	1-5	3.722	0.920	.80	3.767	0.835	.79	Kanungo, 1982 <sup>a</sup>
Positive affectivity	2	1-5	3.448	0.774	.74	3.408	0.762	.74	D. Watson <sup>a</sup>
Negative affectivity	3	1-5	3.122	0.825	.75	3.028	0.867	.83	D. Watson <sup>a</sup>
Opportunity	3	1-5	2.878	0.918	.87	2.804	0.834	.80	Price & Mueller, 1981
Spouse support	3	0-5	1.189	1.974	.98	2.343	1.983	.97	House, 1981 <sup>a</sup>
Parent support	2	0-5	3.691	1.152	.90	3.401	1.371	.90	House, 1981 <sup>a</sup>
Friend support	2	1-5	4.058	0.816	.80	3.844	0.798	.63	House, 1981 <sup>a</sup>
Self-investment	2	1-5	4.112	0.675	.78	4.062	0.736	.83	Allen & Meyer, 1990 <sup>a</sup>
General training	3	1-5	3.850	0.942	.89	3.323	1.107	.92	Price & Mueller, 1990
Commitment norm	2	1-5	3.270	0.871	.74	3.365	0.888	.74	New Measure
Intent to stay	3	1-5	3.356	0.976	.86	3.316	0.931	.85	Price & Mueller, 1990
Search behavior	3	1-5	2.446	0.950	.80	2.503	0.896	.76	Hom, Griffith, & Sellaro, 1984 <sup>a</sup>
Mean					.81			.81	

<sup>a</sup> The items are based on personal correspondence with this source.

<sup>b</sup> Alpha cannot be assessed for single-item nor composite-item measures.

<sup>c</sup> The unit of measurement is 100,000 Won in Korean currency.

factor oblique model on the basis of Meyer et al.'s (1993) finding that the ACS and the NCS were highly correlated. Second, McGee and Ford (1987) questioned whether the CCS was unidimensional or bidimensional. They suggested that lack of alternatives and high personal sacrifice might be distinguishable dimensions. To investigate the dimensionality of the CCS, we evaluated the feasibility of a four-factor oblique model—the ACS, two subdimensions of the CCS, and the NCS. Third, we evaluated the construct validity of the commitment scales by examining correlations of the three components with their hypothesized determinants and consequences. We also conducted a multigroup analysis to investigate the consistency of the scales, that is, the equivalence of the parameters of the best-fitting factor model identified across the two samples. The results of this analysis are available from Jong-Wook Ko.

Following recommendations by Bollen and Long (1993), we used multiple indices of fit—the Normed Fit Index (NFI, Bentler & Bonnet, 1980), the Comparative Fit Index (Bentler, 1990),

and the Incremental Fit Index—to evaluate the models' fit to the data.

Covariance structure analysis assumes linear relations among the variables. We used an analysis of variance with linear and nonlinear partitioning to check the linear relationships among the variables. Most relationships were found to be linear. For the relationships that showed significant deviations from linearity, a comparison of the  $R^2$ s with eta squares, along with a graphical examination of the relationships, revealed no extreme levels of nonlinearity.

## Results

### Confirmatory Factor Analyses

Across the two samples, a three-factor oblique model fits the data better than the one- and two-factor models, although its fit is far below .90 in both samples (Table 4). There is no established criterion for evaluating differences in fit in-

Table 3  
Observed Correlations Among Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Job autonomy	—	-.33**	-.32**	-.28**	-.20**	-.19**	.26**	-.01	.11*	.10	.21**	.17**	-.17**	.13*
2. Routinization	-.15**	—	.22**	.07	-.09	.04	-.28**	.12*	-.13*	-.21**	-.25**	-.22**	.16**	-.35**
3. Role ambiguity	-.27**	.12**	—	.25**	.08	.19**	-.31**	.09	-.08	-.17**	-.14**	-.21**	.10	-.10*
4. Role conflict	-.17**	.04	.11**	—	.18**	.32**	-.27**	.10	-.29**	-.22**	-.23**	-.17**	.04	-.01
5. Workload	-.03	-.13**	-.02	.21**	—	.15**	-.20**	.03	-.18**	-.19**	-.03	-.09	.10	.15**
6. Resource inadequacy	-.05	.18**	.03	.20**	.13**	—	-.33**	-.09	-.29**	-.24**	-.23**	-.24**	.10	.07
7. Supervisory support	.17**	-.29**	-.17**	-.28**	.03	-.27**	—	.01	.31**	.28**	.33**	.24**	-.15**	.02
8. Coworker support	.0	-.03	-.06	.16**	.09*	-.05	.05	—	-.01	-.09	.01	.19**	.03	-.15**
9. Distributive justice	.04	-.18**	.02	-.25**	-.06	-.33**	.34**	-.04	—	.49**	.37**	.16**	-.12*	.10*
10. Legitimacy	.01	-.26**	.0	-.17**	.0	-.32**	.39**	.01	.44**	—	.39**	.20**	-.18**	.09
11. Promotional chances	.19**	-.35**	-.05	-.13**	.02	-.30**	.41**	-.01	.37**	.46**	—	.34**	-.15**	.27**
12. Job security	.25**	-.17**	-.18**	-.17**	-.03	-.14**	.30**	.06	.20**	.18**	.38**	—	-.20**	-.03
13. Job hazards	-.14**	.06	.04	.10**	.03	.15**	-.14**	.05	-.11**	-.13**	-.21**	-.20**	—	-.14**
14. Pay	.15**	-.27**	-.26**	-.13**	.05	-.11**	.12**	-.13**	.10**	.08*	.21**	.09*	.14**	—
15. Met expectations	.15**	-.24**	.0	-.22**	.0	-.32**	.34**	-.04	.54**	.46**	.37**	.24**	-.02	.11**
16. Work involvement	.09*	-.20**	-.12**	-.04	-.03	-.12**	.16**	-.01	.10**	.09*	.17**	.17**	-.11**	.16**
17. Positive affectivity	.06	-.16**	-.14**	-.05	-.06	-.15**	.15**	.24**	.15**	.14**	.17**	.20**	-.04	.01
18. Negative affectivity	-.02	.13**	.05	.12**	.10**	.14**	-.10**	-.10*	-.11**	-.09*	-.19**	-.11**	.03	-.16**
19. Opportunity	-.08*	-.02	.07	.17**	.05	.10**	-.11**	.12**	-.17**	-.08*	-.06	-.10**	.19**	-.12**
20. Spouse support	.10*	-.18**	-.24**	-.10*	-.05	-.05	.10**	-.04	.06	.03	.11**	.01	-.04	.45**
21. Parent support	.0	-.01	-.01	.03	.02	.0	.14**	.13**	.04	.04	.08*	.12**	-.05	-.12**
22. Friend support	.0	-.08*	-.09*	.10**	-.01	-.02	.10**	.43**	-.05	.02	.10**	.10**	-.05	-.14**
23. Self-investment	.11**	-.24**	-.33**	-.02	.19**	-.08*	.23**	.11**	.0	.07*	.12**	.14**	-.05	.26**
24. General training	.13**	-.29**	-.21**	.04	.01	-.09*	.20**	.01	.04	.12**	.18**	.11**	-.08*	.22**
25. Commitment norm	.10**	-.10**	-.11**	-.15**	-.04	-.19**	.29**	.04	.19**	.22**	.13**	.14**	-.02	.10**
26. Intent to stay	.20**	-.26**	-.11**	-.26**	.02	-.19**	.37**	.0	.36**	.33**	.36**	.39**	-.18**	.20**
27. Search behavior	-.23**	.12**	.13**	.22**	.01	.14**	-.22**	.10**	-.25**	-.13**	-.22**	-.24**	.21**	-.21**
28. Affective commitment	.19**	-.36**	-.09*	-.21**	.06	-.28**	.44**	.03	.45**	.40**	.39**	.32**	-.12**	.19**
29. Continuance commitment	-.05	.13**	.06	-.06	-.07*	-.04	.02	-.13	.08*	.0	-.13**	-.11**	-.15**	-.01
30. Normative commitment	.13**	-.27**	-.06	-.13**	.10**	-.23**	.36**	.01	.43**	.42**	.32**	.23**	-.11**	.11**

Note. Decimal points were deleted. Values over and below the diagonal are Sample 1 and 2 results, respectively.

\*  $p < .05$  (one-tailed). \*\*  $p < .01$  (one-tailed).

dexes, but differences of less than .01 are considered unimportant on practical grounds (Dunham et al., 1994; Widaman, 1985). The three-factor oblique model shows important improvements in fit over the one- and two-factor models by .05 to .07 in Sample 1 and by .04 to .08 in Sample 2. Chi-square difference tests also indicate that the three-factor oblique model results in statistically significant decrement in the  $\chi^2$  over other models at the .05 level in both samples.

Fit indices and significance tests in Table 4 also show that the four-factor oblique model (ACS, lack of alternatives, high personal sacrifice, and NCS) fits the data better than the three-factor oblique model in both samples. However, the improvement based on fit indexes is modest in both samples. Furthermore, the two subdimensions of the CCS are highly correlated in both samples ( $r_s = .82$  and  $.81$  in Samples 1 and 2, respectively), indicating that the two subdimensions of the CCS are not independent. Overall, the CFA supports the three-factor oblique model rather than the four-factor model, across both samples.

Factor loadings for the three-factor oblique solution are presented in Table 5. The results show that the ACS items, the CCS items, and the NCS items load appropriately on three separate factors, but it should be noted that some

items display low factor loadings. For example, the factor loadings of AC6 in Sample 1 (.45) and NC2 in Sample 2 (.37) are relatively low. More serious is that two items in Sample 1 and one item in Sample 2 exhibit extremely low factor loadings for the continuance dimension. CC1 and CC5 load only .07 and .11 in Sample 1, and CC5 loads only .13 in Sample 2. The poor overall fit of the three-factor oblique model thus appears to result from the extremely low loadings of some items.

### Interscale Correlations

The ACS and the NCS are highly correlated in both samples ( $r_s = .73$  and  $.84$  in Samples 1 and 2, respectively), whereas the CCS has a weak positive association with the ACS in Sample 1 ( $r = .19$ ), but a weak negative association in Sample 2 ( $r = -.10$ ). For the CCS and the NCS, the two are positively correlated in Sample 1 ( $r = .29$ ), whereas the correlation between the two is not significant in Sample 2 ( $r = .06$ ). These correlations are among the latent variables (i.e., the variables corrected for unreliability using LISREL). Tables 6–9 also include correlations among the latent variables.

15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
17**	13*	07	-12*	-12*	10	-03	01	01	19**	20**	23**	-27**	10*	23**	-02	25**
-14*	-25**	-11*	20**	02	-20**	04	16**	-10*	-28**	-26**	-30**	23**	-19**	-26**	10	-25**
-16**	-25**	-03	11*	06	-11*	-08	-01	-11*	-26	-18**	-19**	22**	-20**	-21**	-10*	-18**
-31**	0	0	10*	05	-02	-03	03	06	-05	-04	-23**	17**	10*	-15**	-01	-16**
-12*	01	-09	02	05	19**	-09	-08	28**	04	-05	-12*	09	14*	-01	-05	-10*
-42**	-12*	-11*	01	14*	11*	-11*	-05	-02	-09	-18**	-27**	16**	05	-36**	-07	-34**
36**	18**	11*	-11*	-10*	-02	11*	-01	11*	16**	28**	43**	-34**	01	35**	14**	41**
14*	-01	32**	0	03	-21**	16**	44**	13*	-12*	-01	06	-02	11*	17**	-08	09
45**	04	04	-09	-21**	02	06	-01	-02	08	23**	34**	-19**	-14*	32**	15**	38**
38**	14**	08	-20**	-12*	-04	07	-06	-02	20**	20**	41**	-27**	-06	32**	13*	35**
31**	18**	04	-07	-07	09	14**	-01	12*	23**	20**	34**	-30**	11*	31**	03	32**
30**	12*	16**	-10*	06	-10	18**	21**	14**	27**	13*	38**	-23**	13*	24**	-13*	27**
-13*	-05	01	08	-05	-10	-05	04	-01	-25**	-11*	-19**	13*	02	-10	08	-22**
02	21**	-08	-21**	-01	62**	-10	-26**	24**	21**	18**	20**	-23**	23**	14*	03	09
—	14**	14**	-17**	-19**	-04	10	0	14**	07	23**	58**	-36**	-01	64**	07	51**
04	—	01	05	0	19**	-01	-02	22**	21**	41**	15**	-19**	19**	29**	09	22**
19**	17**	—	-12*	14**	-12*	21**	22**	08	06	02	09	01	11*	13*	-24**	10*
-14**	-06	-15**	—	06	-17**	-05	04	-17**	-07	-16**	-27**	29**	-12*	-23**	11*	-28**
-12**	-07*	03	03	—	-05	01	10	-03	14**	-16**	-23**	28**	17**	-29**	-30**	-16**
05	20**	03	-10**	-06	—	-07	-18**	16**	09	15**	11*	-21**	09	05	-03	0
-04	-02**	18**	07	10**	-03	—	35**	05	15**	-02	08	-02	0	13*	-04	09
-04	05	25**	-08*	05	-05	23**	—	07	01	-12*	-01	06	02	0	-16**	-02
09*	24**	20**	-05	-07*	28**	13**	13**	—	12*	22**	25**	-20**	23**	30**	-01	16**
14**	06	10*	-07*	10**	18**	07*	05	15**	—	14**	16**	-10*	08	12*	-10*	17**
19**	30**	18**	-04	-06	16**	01	05	21**	01	—	26**	-29**	10*	46**	16**	45**
50**	14**	25**	-19**	-26**	14**	05	03	20**	10**	28**	—	-62**	06	59**	12*	53**
-30**	-13**	-05	11**	36**	-16**	04	03	-16**	-01	-16**	-55**	—	-06	-45**	-19**	-36**
62**	20**	33**	-20**	-14**	18**	05	0	29**	16**	33**	67**	-40**	07*	—	09	62**
-03	02	-09*	14**	-35**	-04	-20**	-14**	-02	-15**	03	-17**	-04	-01	—	—	14*
56**	16**	21**	-11**	-17**	04	-02	-06	18**	12**	34**	61**	-37**	03	69**	10**	—

### *Hypothesized Determinants and Consequences of Commitment*

*Correlations relating to the hypothesized determinants of AC.* As indicated in Table 6, 17 out of 22 determinants are significantly correlated with ACS in the predicted direction in Samples 1 and 2; 14 are the same in both samples. Only two variables, workload and friend support, have no relationship to the ACS in either sample. (Reference is made to "hypothesized" determinants, and later to hypothesized consequences, because the research design of our study does not allow for the actual testing of the determinants and consequences.)

*Correlations relating to the hypothesized determinants of CC.* Table 7 shows the correlations of the CCS with its determinants. We dropped two items, CC1 and CC5, from the CCS in calculating the correlations. There are two reasons for this. First, these items exhibited extremely low factor loadings. Second, the poor loadings caused convergence problems when we estimated parameters using LISREL. (The alphas for the revised scales are as follows: for Sample 1, .64 and for Sample 2, .68.)

Table 7 indicates that three out of eight determinants

(supervisory support, friend support, and opportunity) have significant correlations with the CCS in Sample 1. Of the three, correlations involving supervisory support and opportunity are as predicted. Contrary to the prediction, friend support is negatively correlated with CC. In Sample 2, five determinants (general training, coworker support, parent support, friend support, and opportunity) are significantly correlated with the CCS, but only the two correlations involving general training and opportunity are consistent with the predictions. The other three correlations—involving coworker support, parent support, and friend support—are not consistent.

*Correlations relating to the hypothesized determinants of NC.* Table 8 shows that eight out of nine determinants are significantly correlated with the NCS in the predicted direction in both samples. Only one variable, coworker support, has no association in either sample.

*Correlations relating to the hypothesized consequences of commitment.* Table 9 presents the correlations of the commitment components with intent to stay and search behavior. It should be noted that we dropped two items of the CCS (CC1 and CC5) in calculating correlations because of the reasons mentioned above. All three com-

Table 4  
Overall Fit Indexes for the Three Commitment Scales

Model	Sample 1					Sample 2				
	$\chi^2$	df	NFI	CFI	IFI	$\chi^2$	df	NFI	CFI	IFI
Null	1,981.547	153	NA	NA	NA	4,137.813	153	NA	NA	NA
One-factor	715.449	135	.64	.68	.69	1,203.135	135	.71	.73	.73
Two-factor oblique	694.382	134	.65	.70	.70	1,083.891	134	.74	.76	.76
Three-factor oblique	589.567	132	.70	.75	.75	898.578	132	.78	.81	.81
Four-factor oblique	558.426	129	.72	.77	.77	794.503	129	.81	.83	.83

Note. NA = not applicable; NFI = normed fit index; CFI = comparative fit index; IFI = incremental fit index.

mitment components, with one exception, are positively correlated with intent to stay in both samples. Continuance commitment has no association with intent to stay in Sample 2. Consistent with our predictions, the three components are negatively related with search behavior in both samples.

### Discussion

This section consists of two subsections. The psychometric properties of the scales are discussed in the first subsection, and conceptual problems pertaining to the scales are examined in the second.

#### Psychometric Properties of the Scales

This study shows mixed results for the psychometric properties of the scales. Four issues—reliability, conver-

gent/discriminant validity, the dimensionality of the CCS, and construct validity—are discussed.

**Reliability.** Although it is recommended that reliabilities should not be below .80, those that are not below .70 are generally still considered acceptable (Nunnally, 1978). The reliabilities of the ACS and the NCS are acceptable, because they are over .70 (Table 2). These results are consistent with those of Meyer et al. (1993), who reported that reliabilities were .82 and .83 for the six-item versions of the ACS and the NCS, respectively. However, unlike Meyer et al., who obtained a reliability of .74 for the six-item CCS, the reliability of the CCS in our study is found to be less satisfactory because it is below .70 (Table 2). The low reliability could be anticipated because of the poor loadings of some items of the CCS.

**Convergent and discriminant validity.** The ACS,

Table 5  
Factor Loadings of the Commitment Items for the Three-Factor Oblique Model

Item	AC		CC		NC	
	S1	S2	S1	S2	S1	S2
AC1. I would be very happy to spend the rest of my career with this organization.	.64	.71				
AC2. I really feel as if this organization's problems are my own.	.67	.66				
AC3. I do not feel a strong sense of belonging to my organization.	.85	.85				
AC4. I do not feel emotionally attached to this organization.	.92	.86				
AC5. I do not feel like part of the family at my organization.	.69	.73				
AC6. This organization has a great deal of personal meaning for me.	.45	.57				
CC1. Right now, staying with my organization is a matter of necessity as much as desire.			.07	.36		
CC2. It would be very hard for me to leave my organization right now, even if I wanted to.			.45	.48		
CC3. Too much of my life would be disrupted if I decided I wanted to leave my organization now.			.78	.69		
CC4. I feel that I have too few options to consider leaving this organization.			.62	.70		
CC5. If I had not already put so much of myself into this organization, I might consider working elsewhere.			.11	.13		
CC6. One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.			.38	.53		
NC1. I do not feel any obligation to remain with my current employer.					.61	.60
NC2. Even if it were to my advantage, I do not feel it would be right to leave my organization now.					.51	.37
NC3. I would feel guilty if I left this organization now.					.65	.59
NC4. This organization deserves my loyalty.					.72	.83
NC5. I would not leave my organization right now because I have a sense of obligation to the people in it.					.49	.46
NC6. I owe a great deal to my organization.					.61	.65

Note. Factor loadings are based on completely standardized solution results: AC = affective commitment; CC = continuance commitment; NC = normative commitment; S1 = Sample 1; S2 = Sample 2.



Table 6

*LISREL Estimated Correlations of Affective Commitment With Its Hypothesized Determinants*

Determinant	Sample 1	Sample 2
Job autonomy	.24**	.22**
Routinization	-.23**	-.39**
Role ambiguity	-.25**	-.08
Role conflict	-.16**	-.23**
Workload	-.03	.07
Resource inadequacy	-.41**	-.35**
Supervisory support	.38**	.47**
Coworker support	.23**	.05
Distributive justice	.33**	.49**
Legitimacy	.36**	.47**
Promotional chances	.33**	.49**
Job security	.28**	.38**
Job hazards	-.09	-.14**
Pay	.08	.19**
Met expectations	.65**	.69**
Work involvement	.29**	.20**
Positive affectivity	.16*	.38**
Negative affectivity	-.27**	-.23**
Local opportunity	-.35**	-.17**
Spouse support	.00	.17**
Parent support	.18**	.06
Friend support	.06	.03

\*  $p < .05$  (one-tailed test). \*\*  $p < .01$  (one-tailed test).

CCS, and NCS items loaded appropriately on three separate factors, although two items of the CCS in Sample 1 and one item of the CCS in Sample 2 exhibited extremely low loadings. These results are consistent with those of Meyer et al. (1993), who investigated the six-item versions of the scales; other recent studies (Allen & Meyer, 1990; Dunham et al., 1994; Hackett et al., 1994), which examined the earlier eight-item versions, showed similar results. Empirical evidence thus generally supports the convergent validity of the three scales.

However, the ACS and the NCS were highly correlated, although both of them were relatively independent of the CCS. As previously indicated, Meyer et al. (1993) re-

Table 8

*LISREL Estimated Correlations of Normative Commitment With Its Hypothesized Determinants*

Determinant	Sample 1	Sample 2
Commitment norm	.58**	.41**
Supervisory support	.52**	.46**
Coworker support	.11	-.03
Distributive justice	.48**	.52**
Legitimacy	.49**	.59**
Promotional chances	.47**	.47**
Job security	.34**	.30**
Job hazards	-.25**	-.14**
Pay	.12*	.15**

\*  $p < .05$  (one-tailed test). \*\*  $p < .01$  (one-tailed test).

placed the eight-item version of the NCS with a rewritten six-item version in an effort to more adequately measure NC. Despite these modifications, and similar to the results of our study, they found that the six-item versions of the ACS and the NCS were highly correlated ( $r = .74$ ). These results suggest that the NCS is not distinct from the ACS, that is, the NCS lacks discriminant validity.

**Dimensionality of the CCS.** Unlike those of McGee and Ford (1987), our results suggest that the two subdimensions of the CCS—lack of alternatives and high personal sacrifice—are not distinguishable. Recent studies (Dunham et al., 1994; Hackett et al., 1994; Meyer & Allen, 1991), which examined the eight-item version, have found that the best fit was provided by a model treating the CCS as two dimensional. However, these recent studies also found that the two subscales were highly correlated; the correlation between the two was .82 in Meyer, Allen, and Gellatly (1990), .74 in Dunham et al., and .77 in Hackett et al. In addition, Hackett et al. found that the two subscales generally did not have different relationships with their determinants and consequences. In sum, the evidence suggests that the CCS should be treated as unidimensional.

Table 7

*LISREL Estimated Correlations of Continuance Commitment With Its Hypothesized Determinants*

Determinant	Sample 1	Sample 2
Self-investment	.02	.01
Supervisory support	.23**	.07
Coworker support	-.08	-.16**
Spouse support	-.05	-.04
Parent support	-.01	-.20**
Friend support	-.22**	-.19**
Local opportunity	-.41**	-.47**
General training	-.08	-.15**

Note. Two items of the Continuance Commitment Scale, CC1 and CC5, were deleted.

\*\*  $p < .01$  (one-tailed test).

Table 9

*LISREL Estimated Correlations of Commitment With Its Hypothesized Consequences*

Variable	Intent to stay		Search behavior	
	Sample 1	Sample 2	Sample 1	Sample 2
AC	.59**	.71**	-.47**	-.50**
CC <sup>a</sup>	.22**	.08	-.28**	-.20**
NC	.65**	.68**	-.45**	-.46**

Note. AC = affective commitment; CC = continuance commitment; NC = normative commitment.

<sup>a</sup> Two items of the Continuance Commitment Scale, CC1 and CC5, were deleted.

\*\*  $p < .01$  (one-tailed test).

However, there is a serious problem associated with combining items reflecting both lack of alternatives and high personal sacrifice. As suggested by Becker (1960), lack of alternatives is not part of commitment but should be viewed as its determinant. Therefore, lack of alternative items should be eliminated from the CCS.

**Construct validity.** The overall results for the relationships of the ACS with its determinants and consequences support its construct validity, because most of the correlations are significant and in the predicted direction. The findings provide a mixed picture for the construct validity of the CCS, however. Only about one half of the 22 correlations examined are significant. Furthermore, the significant correlations involving general training, supervisory support, and opportunity are in the predicted direction, whereas those involving coworker support, parent support, and friend support are not consistent with the predictions. These findings indicate that the construct validity of the CCS is problematic. Finally, concerning the NCS, the overall results are consistent with predictions; almost all the correlations examined are significant and in the predicted direction.

Similar findings for the eight-item versions were reported by Dunham et al. (1994), who found that most of the relationships of the ACS and the NCS were as anticipated, whereas none of the variables examined were consistently related to the CCS in the predicted direction. It thus appears that the construct validities of the ACS and the NCS are generally supported, whereas that of the CCS are not.

As discussed above, the NCS lacks discriminant validity. Therefore, although almost all the correlations of the NCS with its determinants and consequences are significant, the construct validity of the NCS is not supported because of its lack of discriminant validity. In addition, except for commitment norm, the variables examined as determinants of the NCS are also determinants of AC. The nature of the determinants of the NCS suggests that the processes leading to its development may not be different from those leading to the development of the ACS. These considerations suggest that NC may be a redundant concept.

A final comment needs to be made about the ACS. The results show that the ACS has good psychometric properties in terms of reliability and validity. In addition, recent studies (Dunham et al., 1994), which investigated the earlier eight-item versions of the scales, demonstrated that the ACS converges with Porter et al.'s (1974) Organizational Commitment Questionnaire (OCQ). Although the two instruments measure basically the same concept, there is no compelling reason to replace the OCQ with the ACS, because the psychometric properties of the OCQ have been well documented compared with those of the ACS. In addition, considering that most research on com-

mitment has used the OCQ, the continued use of the OCQ would facilitate comparison across studies. It should be, of course, noted that the original form of the OCQ is not adequate, because it measures two separate factors, AC and desire to stay (Angle & Perry, 1981; Tetrick & Farkas, 1988). Therefore, a version of the OCQ that excludes the desire to stay factor should be used in future research on AC.

### *Conceptual Problems*

The difficulties with the psychometric properties of the scales, especially the CCS and the NCS, appear to result, at least in part, from the conceptual problems with Meyer and Allen's three-component model of commitment. Four such problems are discussed.

First, Meyer and Allen (Allen & Meyer, 1990; Meyer & Allen, 1991) did not offer a precise definition of commitment that embraces the affective, continuance, and normative components. They simply noted that what is common to the three components is a "psychological state" that links the employee to the organization, but it is not clear what is meant by this psychological state.

Second, Meyer et al. (1990) argued that CC has two subdimensions, lack of alternatives and high personal sacrifice. However, as indicated above, lack of alternatives cannot be considered a subdimension of CC, because, as suggested by Becker (1960), job alternatives (or *opportunity* as labeled in our study) is a potential determinant of CC. Therefore, although the results of our study show that the two subdimensions are highly correlated, the lack of alternatives dimension should be eliminated from CC. On the other hand, the other subdimension, high personal sacrifice, appears to represent adequately Becker's side-bet view. However, as indicated above, because the operationalization of high personal sacrifice heavily focuses on intent to stay, a new measure should be developed that appropriately reflects Becker's conceptualization.

Third, Meyer et al. (1993) argued that Becker's (1960) concept of commitment represents a component of attitudinal commitment because he emphasized the *awareness* of the costs associated with leaving the organization. However, their argument is untenable. Becker defined commitment as a *consistent line of activity* (i.e., maintaining membership in the organization) and attempted to explain what causes this consistency. His explanation is that side bets play a crucial role in developing the consistent activity and that in order for side bets to cause such consistency, individuals must be *aware* that they have made side bets that would stake their interests on following this activity. As is evident in his approach, Becker considered commitment as behavioral. Therefore, Becker's view of commitment seems to be more congruent with the behavioral rather than attitudinal approach of

Porter and his colleagues, although Becker recognized the individual's awareness of side bets made and the interests associated with them as a necessary condition for side bets to produce a consistent line of activity.

Fourth, the concept of NC is troublesome, because it appears that there is considerable conceptual overlap between NC and AC. As indicated above, the normative component of commitment is based on the belief that it is the right thing to remain with the organization and that AC is attachment to the organization such that the strongly committed individual identifies with, is involved in, and enjoys membership in the organization. It is unclear how NC can be conceptually separable from AC. Even Allen and Meyer (1990), who argued that the two concepts are distinct, recognized that there may be inherent psychological overlap between them. The lack of discriminant validity between the ACS and NCS may thus be due to a considerable conceptual redundancy between AC and NC.

The above discussion suggests that there are conceptual problems with Meyer and Allen's three-component model of commitment and that those conceptual problems may, to a large extent, be responsible for the psychometric difficulties found in the scales. If this is the case, in order for their model to be viable, considerable conceptual work needs to be done and new measures should be developed that adequately assess the new conceptualizations.

### Conclusion

Seven concerns should be dealt with in future research. First, our study tried to investigate extensively the construct validities of the scales by examining determinants of the components. However, because little is known about the determinants of CC and NC, we examined only a limited range of determinants. There may be many different determinants unique to CC and NC. These determinants should be identified and examined in future research.

Second, new measures should be devised for CC and NC, because it is possible that Meyer and Allen's three-component view of commitment is correct. With respect to CC, the operationalization should carefully adhere to Becker's (1960) view of CC as a consistent line of activity. The alternative component of CC should also be excluded. In addition, a new measure that adequately represents the concept of NC, and is distinct from the ACS, also should be developed.

Third, the South Korean site should be noted. Because nearly all previous research on Meyer and Allen's three-component view of commitment has been conducted in Western societies, the South Korean site provided an excellent opportunity to test the generality of Meyer and Allen's view. South Korea is, of course, a very different type of society from the West (Chung, 1989; Vogel,

1991), and if the three-component view is supported in the South Korean society, strong evidence will have been provided for the generality of Meyer and Allen's view. The translation of the questionnaire was handled with care to further comparability. However, it is still possible that the three components are distinguished in the West but not in South Korea. Additional studies conducted in other Asian societies are needed to provide more information pertinent to conceptual distinctions in the West and Asia. Another reason for not generalizing the findings of this study is that they are based on the investigation of only two organizations in South Korea. An attempt should be made to increase the generalizability of the results by studying diverse organizations in South Korea as well as in other Asian countries.

Fourth, improvements in measurement are required for self-investment. It appears that the poor measurement of self-investment is responsible, at least in part, for the unanticipated findings involving this variable. The kind and amount of investments that each employee has made in the organization may be quite specific to the individual and thus may not be adequately captured by the general self-report measure used in this study (Allen & Meyer, 1990).

Fifth, it may be that there are some causal relationships among the three components of commitment. As suggested by Salancik (1977), CC may tend to result in favorable attitudes toward the organization through rationalization. Or as suggested by Mowday et al. (1982), there may be reciprocal causal relationships between AC and CC. Again, it may be that NC is a determinant of AC. Finally, another possibility is that commitment might have a hierarchical structure where AC and CC are two dimensions of a general commitment concept and that attitudinal commitment is again composed of AC and NC, without causal relationships among the various components. These possibilities should be investigated in future research.

Sixth, until the issues involving the three-component view of commitment are resolved, we suggest that commitment, following Mowday et al. (1982), be viewed as loyalty to the organization. Commitment viewed as loyalty is used widely in organizational studies (Price & Mueller, 1986a), and this view should not be discarded until some resolution is reached concerning Meyer and Allen's three-component model of commitment.

Seventh, the determinants of consequences of commitment were of concern in our study. However, because we used self-report data collected at one point in time, we could not test for actual determinants and consequences. Future research, therefore, should use a longitudinal design to make these tests.

The implementation of these suggestions will improve

the understanding of the nature of commitment, the processes leading to its development, and its consequences.

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